

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
13 January 2005 (13.01.2005)

PCT

(10) International Publication Number  
**WO 2005/002377 A1**

(51) International Patent Classification<sup>7</sup>: **A41H 37/10**

(21) International Application Number:  
PCT/KR2004/001657

(22) International Filing Date: 5 July 2004 (05.07.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:  
10-2003-0045538 5 July 2003 (05.07.2003) KR

(71) Applicant (for all designated States except US): MYUNG  
JIN S.M. CO., LTD. [KR/KR]; 4F, 206-3 Wonjong-dong,  
Ohjung-gu, Bucheon-si, Kyunggi-do 421-200 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SEO, Myung-won  
[KR/KR]; Hanyang 203 ho, 425-5, Sinwol 4-dong,  
Yangcheon-gu, Seoul 158-832 (KR). OH, Eul-suk  
[KR/KR]; Hanyang 203 ho, 425-5, Sinwol 4-dong,  
Yangcheon-gu, Seoul 158-832 (KR).

(74) Agent: AJU PATENT & LAW FIRM; 12th Floor,  
Poonglim Building, 823-1, Yeoksam-dong, Kangnam-gu,  
Seoul 135-784 (KR).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,  
MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,  
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,  
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

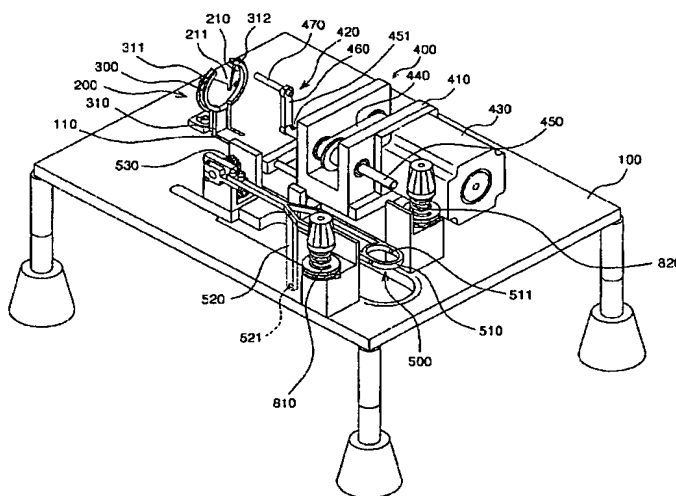
(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: BUTTON WRAPPING AND KNOTTING METHOD AND APPARATUS THEREOF



(57) Abstract: A method and apparatus for winding and knotting a thread around a sewing thread of a button for clothes so that a gap between the button and a suit, on which the button is sewn, is maintained. The thread, which is twisted at least twice, passes over the sewing thread of the button and winds around the sewing thread, thereby forming firm knots of the thread around the sewing thread of the button and preventing the knots of the thread from being disentangled. Since guiding means accurately and reliably guides the thread to pass over the sewing thread of the button, and the knot-guiding means and the thread take-up means of the apparatus are simultaneously operated by a single driving means, the apparatus and method of the present invention perform firm and effective winding of the thread around the sewing thread of the button as well as reduce production costs and energy consumption rate of the apparatus, and reduces failure rate, thereby improving reliability of winding and knotting the thread around the sewing thread of the button.

WO 2005/002377 A1



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*